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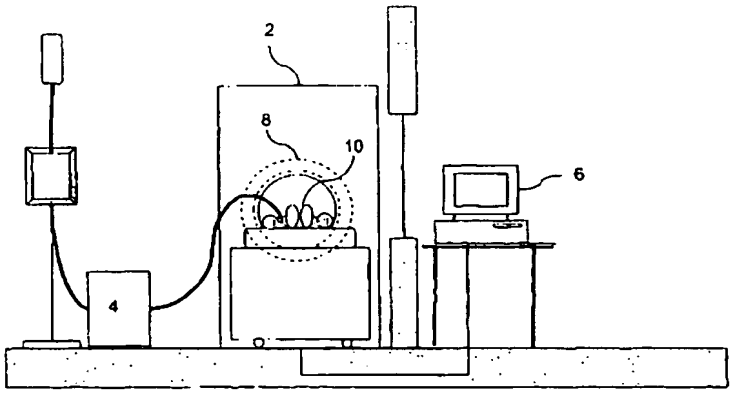
(54) Title: METHOD OF, AND SOFTWARE FOR, CONDUCTING MOTION CORRECTION FOR A TOMOGRAPHIC SCANNER



(57) Abstract: A method of conducting motion correction for a tomographic scanner including a detector array for detecting radiation to generate detector data. The method comprises storing detector data collected during a data acquisition period, the detector data being indicative of directions along which radiation is detected and quantities of radiation detected in different of said directions. The method involves storing movement data representing movement of the subject during the data acquisition period and motion correcting the detector data using the movement data and a motion correction algorithm to calculate motion corrected detector data. The motion correcting step comprises realigning directions of at least some of said detector data on the basis of said movement data and altering quantities of at least some of said detector data on the basis of said movement data, such that at least some of said detector data are both realigned and altered in quantity due to movement of the subject, some detector data are very small and subject to large noise levels. In these cases, the detector data quantities are altered using calculation of estimates from other, more reliable, detector data.

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